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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,433	12/05/2001	Nen-Fu Huang	U 013760-3	7422

7590

03/03/2006

Ladas & Parry  
26 West 61st Street  
New York, NY 10023

EXAMINER
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HOANG, THAI D

ART UNIT	PAPER NUMBER
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2668

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/003,433

Applicant(s)

HUANG ET AL.

Examiner

Thai D. Hoang

Art Unit

2668

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Election filed on 12/05/2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2,4-6 and 8 is/are rejected.  
7) ☒ Claim(s) 3 and 7 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 05 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



HANH NGUYEN  
PRIMARY EXAMINER

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/05/2001.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The statement "when the corresponding time of said time-division queue is equal to the system time" recited in claim 1, lines 16-17, and claim 5, lines 13-14 is confusing. It is not clear how "the corresponding time of said time-division queue", which is a time slot, equals to the system time.

Claims 2-4 and 6-8 are rejected because they depend on rejected claims 1 and 5 respectively.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al, US Patent No. 6,504,824 B1, in view of Fan et al, US Patent No. 6,389,019 B1, hereafter referred to as Tanaka and Fan respectively.

Regarding claims 1 and 5, as best understood, Tanaka discloses an Apparatus and method for managing rate band. Tanaka teaches the apparatus perform the steps of:

the rate measurement unit 1 measures the flow rate of cells to be inputted for each connection, judges whether or not the flow rate exceeds a virtual MCR value stored in the virtual MCR storage unit 7, and if there is a connection transmitting cells at a rate exceeding the virtual MCR value, reports the information a' to an input control unit 4. The input control unit 4 inputs data cells to a memory FIFO 2 if the memory's capacity is available; col. 5, lines 41-59, col. 12, lines 12-26. Tanaka does not disclose the apparatus transmits the input packet queued in memory when the corresponding time of the time-division queue is equal to the system time of the bandwidth management device. However, Fan discloses a method and system called "Time-based scheduler architecture and method for ATM networks." Fan teaches that when the value of Current Time equals the value of Time stamp  $S_i$  of a cell in queue  $Q_i$ , the cell is eligible to be transmitted; col. 6, lines 60-64, col. 14, lines 61-62, col. 15, lines 14-17. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt Fan method into the system disclosed by Tanaka in order to ensure quality of service.

Regarding claims 2 and 6, as best understood, Fan teaches that each of queues  $Q_i$  associates with a rate  $R_i$ , fig 1, col. 5, lines 60-61. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt Fan method into the system disclosed by Tanaka for advantages cited above with respect to claim 1.

Regarding claims 4 and 8, as best understood, Takana discloses if the measured rate not exceed a predetermined rate, the inputted cells go to the output; col. 2, lines 1-15.

### ***Allowable Subject Matter***

Claims 3 and 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph of the independent claims, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to the application:

US Patent No. 6,408,005 B1, Fan et al, "Dynamic rate control scheduler for ATM networks."

US Patent No. 5,793,747 A, Kline, "Event-driven cell scheduler and method for supporting multiple service categories in a communication network."

US Patent Application Publication 2004/0090974 A1, Balakrishnan et al., "Method and apparatus for bandwidth guarantee and overload protection in a network switch."

US Patent Application Publication 2002/0136230 A1, Dell et al., "Scheduler for a packet routing and switching system."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D. Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Chieh can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thai Hoang



**HANH NGUYEN**  
**PRIMARY EXAMINER**